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APPEAL TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

IN RE APPLICATION OF:

JEFFREY C. SCHROEDER

APPLICATION NO.: 09/604,824

FILED: JUNE 27, 2000

TITLE: SYSTEM AND METHOD FOR INTEGRATING WEATHER DATA INTO TELEVISION BROADCAST

EXAMINER: HAI V. TRAN

ART UNIT: 2623

AMENDED APPELLANT'S BRIEF

MAIL STOP APPEAL BRIEF - PATENTS
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Sir:

Appellant respectfully submits this Amended Appellant's Brief pursuant to 37 C.F.R. §1.192 in response to the Official Communications dated August 3, 2007. The Applicant has addressed all of the asserted formalities.

CERTIFICATE OF MAILING (37 CFR 1.8(a))

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as Express Mail on June 25, 2007, in an envelope addressed to: Mail Stop Appeal Brief – Patents, Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Suzanne Hanson 11/27/07
Date

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(a). As Neither Shelton nor Any of the Art Cited/Official Notices Taken by the Examiner Teaches or Suggests Any of the Missing Claimed Limitations Discussed Above with Regard to Claim 34, and Claims 42-43 and 47-60 Depend Directly or Indirectly Therefrom, Claims 42-43 and 47-60 are Patentable Over Shelton and the Art Cited/Official Notices

I. REAL PARTY IN INTEREST:

UNISYS CORPORATION
ONE UNISYS WAY
BLUE BELL, PA 19424

Unisys Corporation is the real party in interest through an Assignment from all the inventors of their entire right, title, and interest, duly recorded on August 31, 2000 in the United States Patent and Trademark Office at Reel/Frame 011134/0712, comprising three (3) pages.

II. RELATED PENDING APPEALS OR INTERFERENCES:

None.

III. STATUS OF CLAIMS

The status of the claims in the subject application are as follows:

A. Total Number of Claims in the Application

The application was originally filed with claims 1-33. Thereafter, these claims were canceled and replaced with claims 34-88.

B. Status of all the Claims

1. Claims canceled: 1-33;
2. Claims withdrawn from consideration but not canceled: NONE
3. Claims allowed: NONE
4. Claims rejected: 34-88; and,
5. Claims pending: 34-88

Claims 34-88 are currently pending in the subject application and have been finally rejected in the Office Action dated January 11, 2007, following the reopening of prosecution pursuant to a Prior Notice of Panel Decision from Pre-Appeal Brief Review dated November 2, 2006. The prior Notice following a review was initiated as part of first Notice of Appeal filed September 14, 2006. There are no other pending claims in the case.

More specifically, claims 34-36, 40-77 and 79-88 are rejected under 35 U.S.C. §102(b) as being unpatentable over U.S. Patent No. 5,568,385 (hereinafter, "Shelton"). Claims 37-39 and 78 are rejected under 35 U.S.C. §103(a) as being unpatentable over Shelton.

IV. STATUS OF THE AMENDMENTS

All amendments have been acted upon by the Examiner and entered prior to the filing of the Notice of Appeal. No other amendments are believed to be outstanding.

A clean set of claims 34-88 is provided as Claims Appendix.

V. SUMMARY OF THE CLAIMS SUBJECT MATTER

As set forth in more detail in the subject application, the invention generally relates to a system for integrating data representing at least one weather parameter prevailing at a plurality of geographic locations into television broadcast signals originating from and related to the plurality of geographic locations.

In a first embodiment, the system comprising a monitoring station located at each of the plurality of geographic locations (14, FIGs 1-5,9 pp. 3-7 and 9-10). The monitoring station(14, FIGs 1-5, 9 pp. 3-7 and 9-10) including a means (22 - Figs 2-3, 8, pp. 4, 6, and 8, 46, 48 - FIG. 3, p. 6) for sensing the weather parameters prevailing at each of the plurality of geographic locations (12 - FIGs 1-4, pp. 3-5, 42, 44 - FIGs 5-6, pp. 6, 8), and for generating weather parameter signals representing the weather parameters (22 - Figs 2-3, 8, pp. 4, 6, and 8, 46, 48 - FIG. 3, p. 6), and a means for transmitting the weather parameter signals from the monitoring station (24 - FIGs 2-3, 5, and 8, pp. 4-6, 9). The system also comprises a base station (16 - FIGs. 1-2, pp. 3-4) including, means for receiving the weather parameter signals from the monitoring station, and for providing the weather parameter signals to the base station, (14 - FIGs 1-5,9 pp. 3-7 and 9-10, 14a, 14b - FIG. 6, p. 7), a means for generating icon signals representing weather parameter icons in response to the weather parameter signals (36 - FIGs 4-6, 9, pp. 5, 7, 9-10), the weather parameter icons representing the weather parameters sensed at the plurality of geographic locations, and a means for converting the icon signals into television signals representing the weather parameters (12 - FIGs 1-4, pp. 3-5, 42, 44 - FIGs 5-6, pp. 6, 8), the television signals being in a format suitable for integration into the television broadcast signals. (18 - FIGs. 1, 4, 6, pp. 3, 6-8).

The system further comprises a production switching means (19 - FIGs. 4, 9, pp. 6-7, 11) for receiving the television signals representing the weather parameters and the television broadcast signals (12 - FIGs 1-4, pp. 3-5, 42, 44 - FIGs 5-6, pp. 6, 8), and for combining the television signals representing the weather parameters and the television broadcast signals so that first icon signals representing first weather parameter signals sensed at a first geographic location are combined with first television broadcast signals from the first geographic location (12 - FIGs 1-4, pp. 3-5, 42, 44 - FIGs 5-6, pp. 6, 8), and so that second icon signals representing second weather parameter signals sensed at a second geographic location different from the first geographic location are combined with second television broadcast signals from the second geographic location signals (e.g., 18b - FIG. 6, p. 8); and a means coupled with the production switching means (19) for selecting an output television signal corresponding to either the first icon signals representing the first weather parameter signals sensed at the first geographic location combined with the first television broadcast signals (e.g., 18a - FIG. 6, p. 8) from the first geographic location or the second icon signals representing the second weather parameter signals sensed at the second geographic location combined with the second television broadcast signals (e.g., 18b - FIG. 6, p. 8) from the second geographic location.

In another embodiment, the system for integrating data representing weather parameters prevailing at a plurality of geographic locations into television broadcast signals originating from and related to the plurality of geographic locations (14, FIGs 1-5, 9 pp. 3-7 and 9-10). The system comprises a monitoring station located at each of the plurality of geographic locations (14, FIGs 1-5, 9 pp. 3-7 and 9-10). The monitoring station includes a means for sensing the weather parameters prevailing at each of the plurality of geographic locations, and for generating weather parameter signals representing the weather parameters (22 - Figs 2-3, 8, pp. 4, 6, and 8, 46, 48 - FIG. 3, p. 6), and a means for transmitting the weather parameter signals from the monitoring station (24 - FIGs 2-3, 5, and 8, pp. 4-6, 9).

The system also comprises a base station (16 - FIGs. 1-2, pp. 3-4) including a means for receiving the weather parameter signals from the monitoring station and for providing the weather parameter signals to the base station, (14 - FIGs 1-5, 9 pp. 3-7 and 9-10, 14a, 14b - FIG. 6, p. 7), a means for generating icon signals representing weather parameter icons in response to the weather parameter signals, the weather parameter icons representing the weather parameters sensed at the plurality of geographic locations (36 - FIGs 4-6, 9, pp. 5, 7, 9-10), and a means for converting the icon signals into television signals representing the weather parameters (36 - FIGs 4-6, 9, pp. 5, 7, 9-10), the television signals being in a format suitable for integration into the television broadcast signals. (18 - FIGs. 1, 4, 6, pp. 3, 6-8). The monitoring station(14, FIGs 1-5, 9 pp. 3-7 and 9-10) includes a microcontroller coupled

to receive the weather parameter signals from the sensing means (22 - Figs 2-3, 8, pp. 4, 6, and 8, 46, 48 - FIG. 3, p. 6), and wherein the microcontroller (30. Fig. 3) includes means for sampling the weather parameter signals generated by the sensing means, and interrupt logic for servicing interrupts generated by the sampling means.

In yet another embodiment, a method for integrating data representing weather parameters prevailing at a plurality of geographic locations into television broadcast signals originating from and related to the plurality of geographic locations (See Fig. 7) is disclosed. The method comprising the steps of monitoring weather conditions at each of the plurality of geographic locations, the monitoring including sensing the weather parameters prevailing at each of the plurality of geographic locations, and generating weather parameter signals representing the weather parameters (Fig. 7, 71), transmitting the weather parameter signals (Fig. 7, 72) from the monitoring station to a base station for receiving the weather parameter signals (Fig. 7, 73) for providing the weather parameter signals to the base station, generating icon signals representing weather parameter icons in response to the weather parameter signals (Fig. 7, 74), the weather parameter icons representing the weather parameters sensed at the plurality of geographic locations (Fig. 7, 74), converting the icon signals into television signals representing the weather parameters, the television signals being in a format suitable for integration into the television broadcast signals (Fig. 7, 75-76), receiving the television signals representing the weather parameters and the television broadcast signals in production switching means for combining the television signals representing the weather parameters and the television broadcast signals, wherein the combining includes a first combining of first icon signals representing first weather parameter signals sensed at a first geographic location with first television broadcast signals from the first geographic location, and a second combining of second icon signals representing second weather parameter signals sensed at a second geographic location different from the first geographic location with second television broadcast signals from the second geographic location; and selecting an output television signal (Fig. 7, 75-76) corresponding to either the first icon signals representing the first weather parameter signals sensed at the first geographic location combined with the first television broadcast signals from the first geographic location(e.g., 18b - FIG. 6, p. 8); or the second icon signals representing the second weather parameter signals (e.g., 18b - FIG. 6, p. 8); sensed at the second geographic location combined with the second television broadcast signals from the second geographic location(e.g., 18b - FIG. 6, p. 8);.

VI. GROUNDS OF REJECTIONS TO BE REVIEWED ON APPEAL

Whether Claims 34-36, 40-77 and 79-88 are Patentable under 35 U.S.C. §102(b) Over U.S. Patent No. 5,568,385 (hereinafter, "Shelton") ?

Whether Claims 37-39 and 78 are Patentable under 35 U.S.C. §103(a) Over Shelton in view of various Technical Knowledge and Official Notices Taken by the Examiner ?

Although Appellants have substantially described the cited art at issue during the prosecution of the subject application, they set forth the description of such references again herein for ease of reference.

The Shelton Reference

Shelton discloses a software system for collecting and displaying weather information received at multiple remote weather stations (hereinafter, "RWS") 38, 42, 46 and at a base weather station (hereinafter, "BWS") 1 on a base computer (hereinafter, "BC") 4. (*See generally, Shelton*). BWS 1 is located at or near BC 4 (preferably connected thereto by coaxial cable or other direct hookup), while RWS 38, 42, 46 are positioned at locations remote to BC 4 (preferably connected via modems 39, 43, 47 and voice grade telephone systems 25, 27, 29) (*Shelton, Col. 6, lines 23-38*). Weather data and other information collected at RWS 38, 42, 46 is received at the BC 4 modem before joining the information from BWS 1, and data flow from RWS 38, 42, 46 is thus allowed to continue even after power is temporarily lost at one of the remote computers of RWS 38, 42, 46 (*Id. at lines 38-45*). In addition to numerical and textual data, stored or real-time images being collected with a video camera at the same time as the weather data is being collected can be communicated to viewers 32, 34, 36; the weather data being superimposed on the images.

As the operating system of BC 4 is Windows®-based (or its equivalent), weather data collected from BWS1 and RWS 38, 42, 46 is decoded and "manipulated" into separate files or subsets for display in a graphical format (*Id. at Col, 7, lines 1-9*). Each file consists of some subset of information of the weather collected by the computer. (*Id., lines 14-16*). BC 4 sends the screen display data as an output signal 14 to the monitor 10 and an NTSC/Genlock signal processor 14, which then converts the screen display data signal 14 into a television broadcast quality video signal 18. (*Id., lines 21-25*). Television broadcast quality video signal 18 is then routed to conventional television broadcast equipment such as a master control switcher 20 which accepts video signals from other sources and selects which of various signals 19 will be transmitted to viewers 32, 34, 36. (*Id., lines 28-36*). The image thus transmitted to the viewers 32, 34, 36 is the image appearing on the monitor 10 of BC 4. (*Id., lines 36-38*).

VII. ARGUMENT

A. WHETHER CLAIMS 34-36, 40-77 AND 78-88 ARE PATENTABLE UNDER 35 U.S.C. §102(B) OVER U.S. PATENT NO. 5,568,385 (HEREINAFTER, "SHELTON") ?

As stated, *supra*, the Examiner has rejected claims 34-36, 40-77 and 78-88 under 35 U.S.C. §102(b) as being unpatentable over Shelton. Appellant respectfully traverses this rejection for the reasons set forth in the Response dated January 19, 2004, the reasons set forth within the Amended Appeal Brief filed September 9, 2005, and as set forth immediately below.

1. The Examiner Has Failed to Make a *Prima Facie* of Anticipation under 35 U.S.C. §102(b)

The Examiner has rejected claims 34-36, 40-77 and 78-88 under 35 U.S.C. §102(b) over Shelton. It is know that "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (*see, M.P.E.P* §2301). As the Examiner has failed to show in Shelton where each element of Appellant's claimed invention is taught or disclosed, he has failed to establish a *prima facie* case of anticipation.

(a). Shelton Does Not Teach or Disclose Appellant's Claimed Limitation of the Integration of Weather Information into Television Broadcast Signals Originating from and Related to a Plurality of Geographic Locations

Independent claims 34 and 75 are, respectively, system and method claims that teach the integration of data representing weather parameters prevailing at a plurality of geographic locations into ***television broadcast signals*** originating from and related to the plurality of geographic locations. (*See, infra, Appendix A*)(*Emphasis added*). More specifically, and with reference to these claims and the specification, a monitoring station at one geographic location transmits weather parameter signals to a base station. The base station includes means to then generate television signals that represent those weather parameter signals. Similarly, a monitoring station at a second geographic location transmits weather parameter signals to the base station, which then generates television signals that represent those weather parameter signals from the second geographic location. These thus-generated television signals may then be integrated into television broadcast signals from their respective geographic location (i.e., first television signals are combined with first television broadcast signals from the first geographic

location, and second television signals are combined with second television broadcast signals from the second geographic location), via production switching means.

Conversely, in the Shelton's system, weather information is received in any of the RWS 38, 42, and 46 and transmitted to BWS 1, which is communicatively coupled to BC 4. (*Shelton*, Col. 6, lines 17-34). In addition to numerical and textual data, "image information"[1] is collected at the same time as the weather data is being collected and is superimposed on the images.

(1). Shelton Recognizes that the "Image Information" is Not Equivalent to Appellant's Television Broadcast Signals, Because the Signals 14 that Include the "Image Information" are Later Modified into Television Broadcast Signals

The Examiner apparently contends that the "image information" of Shelton is equivalent to Appellant's television broadcast signal. More specifically, the weather data signals disclosed:

> "may be superimposed over video of the region (col. 3, lines 20-35) meeting the claimed integration and superimposing 'on the television broadcast related to the first geographic location.' " (*Office Action dated November 19, 2003*, pp.4-5)

More specifically, Shelton states at Col. 3, lines 20-35:

> *The system includes the ability to collect numerical, textual data, graphs, and pictures; to superimpose the numerical, textual and graph data on said pictures; and to communicate the superimposed image to end users. In this case, pictures can be stored images or real time images being collected with a video camera at the same time as the weather data is being collected. In this fashion, the system is capable of providing end users with high information content weather images, for example, temperature, rainfall, wind speed and barometric data (in alphanumeric and/or graph expression) superimposed upon a satellite picture of the region in question, or some other picture of interest (e.g., real time or taped video of the rain falling; wind blowing snow, rain or trees; snow drifts; snow control teams in action; hurricanes; tornados; earthquakes; etc.)*

There is no further teaching or suggestion of transmission of real-time or taped video information. In fact, the only other reference to the transmission of "image information" may be found at Col. 13, lines 33-40, where Shelton discusses in conjunction with Figure 10, the selection for display of "*bit-map image[s] of frozen video, background or pattern.*" (Emphasis added). These photos 1-9 may be one of "*nine different photos, typically satellite and ground level photos of the particular weather station site,*" and can "*be shown separately, or they can provide background for the screens of window 208 [the*

window that sets for the screen display of current and/or historic weather conditions from RWS 38, 42, 46]." (*Shelton, Col. 13, lines 33-40* and *Col. 12, lines 61-64*). It is the displayed screen information that is transmitted to the viewers 32, 34, 36 (*See VII, supra* and *Col. 7, lines 21-25*), and it is respectfully submitted that this is what Shelton meant by "real-time video" – is in fact a bit-map image of frozen video.

However, even if one were to accept that the "image information" could include live video, such live video is not equivalent to the "television broadcast signal" of Appellant's invention, since Shelton clearly teaches that the signal is later modified to meet NTSC standards for broadcast quality when it is to be broadcast or multiple video source distribution (*Shelton*, Col 3., lines 16-19). More specifically:

> *The base computer 4 sends the output signal 14, corresponding to screen display data, to the monitor 10, and also to a conventional NTSC/Genlock signal processor 16 which converts the screen display signal 14 into a television broadcast quality video signal 18 in a conventional manner. Video signal 18 is then routed through conventional television broadcast equipment to the end users, i.e. to television viewers.* (*Id.* at Col. 7, lines 21-29) (Emphasis Added)

Therefore, Shelton clearly recognizes that the "image information" transmitted from RWS 38, 42, and 46 – whether still or real-time images or real-time video - is not equivalent to Appellant's television broadcast signals. For this reason alone, the Examiner has failed to establish a *prima facie* case of anticipation under 35 U.S.C. §102(b) for independent claims 34 and 75 of Appellant's application. As claims 35-41, 44-46, and 76-88 depend directly or indirectly therefrom, they too are patentable over Shelton under 35 U.S.C. §102.

(b). Additional Reasons Supporting the Separate Patentability of the Claims 34-36, 40-77, and 79-88 Under 35 U.S.C. 102(b)

In addition to the foregoing reasons for the patentability of claims 34-41, 44-46 and 75-88 under 35 U.S.C. §102(b), there are additional reasons supporting the separate patentability of several of the claims, Appellant will address these in the following paragraphs.

(1). Shelton Does Not Teach or Disclose the Means for Selecting an Output Television Signal as Set Forth in Appellant's Claimed Invention

[1] Appellant uses this terminology because he believes that Shelton is somewhat inconsistent in describing the format of the visual information being transmitted from RWS to base station. The term "image information" is believed to be suitably descriptive.

Claims 34-37, 40, 45-60, 75-77, 82-88 (Group I) are separately patentable under 35 U.S.C. §102(b) for the additional reason that, even if Shelton could be said to teach or disclose the transmission of television broadcast signals originating from and related to a plurality of geographic locations and the integration of data representing weather parameters from those locations, the reference does not teach or disclose Appellant's claimed "output television signal selecting means" limitation.

The Examiner contends that Shelton teaches that users may select from real-time information at a location of their choice as taught in Col. 2, lines 58-65. This, he maintains "meet[s] the claimed switching and selecting means for the icon weather signal at a first and second geographic location." (*Office Action dated November 19, 2003* at page 5). He maintains this position in the Advisory Action dated February 9, 2004 stating that "clearly (Fig. 1) teaches a plurality of locations and superimposed images available for selection by a viewer." (*Advisory Action* dated February 9, 2004, p. 4).

As the Examiner does not point to any specific structure in Shelton to support his rejection, it is not entirely clear which of the system elements of Shelton the Examiner is referring to for teaching Appellant's "production switching means" and "output television signal selecting means," - a review of Figure 1 in view of Appellant's claim 34, for example, clearly shows that Shelton does not teach either limitation. More specifically, claim 34 of Appellant's invention sets forth, in relevant part:

> *production switching means for receiving the television signals representing the weather parameters and the television broadcast signals, and for combining the television signals representing the weather parameters and the television broadcast signals so that first icon signals representing first weather parameter signals sensed at a first geographic location are combined with first television broadcast signals from the first geographic location, and so that second icon signals representing second weather parameter signals sensed at a second geographic location different from the first geographic location are combined with second television broadcast signals from the second geographic location; and,*
> *means coupled with the production switching means for selecting an output television signal corresponding to either the first icon signals representing the first weather parameter signals sensed at the first geographic location combined with the first television broadcast signals from the first geographic location or the second icon signals representing the second weather parameter signals sensed at the second geographic location combined with the second television broadcast signals from the second geographic location. (Serial No. 09/604,824, Claim 34)(Emphasis added)*

Referring to Figure 1 of Shelton, along with the accompanying explanation in the specification, the only "output television signal" of Shelton that could correspond to the limitation in Appellant's claimed invention is "television broadcast quality video signal 18." (As discussed in A1, *supra*, screen display signal 14 clearly is not equivalent to an "output television signal" since Shelton teaches that it

must be conditioned in a conventional NTSC/Genlock signal processor 16 to create a "television broadcast quality video signal 18."(*Shelton*, Col. 7, lines 22-26)).

Using this as a starting point and referring to the specification of Shelton, it is understood that television broadcast quality video signal 18 is then routed to a master control switcher 20 "*which accepts video signals from various other sources (not shown) and selects which of these signals 19 will be broadcast to viewers at any given instant.*" (*Shelton, Col. 7, lines 22-33; Fig. 1*). Thus the master control switcher 20 of Shelton is only capable of switching between television broadcast quality video signal 18 and other **non-system** video signals. This is an important distinction, for Shelton teaches that only the television broadcast quality video signal 18 contains the weather parameters overlaid on "image information." Therefore, unlike Appellant's claimed invention, the master control switcher 20 of Shelton **cannot** switch between the "image information" from the first geographic location with first weather icon overlay and the "image information" from the second geographic location with second weather icon overlay.

Claims 47-60 are also separately patentable under 35 U.S.C. §102(b) over Shelton; more specifically, of ISR routines (claim 47), switch logic to configure and program microcontrollers (claim 48), protocol interrupt logic to allow multiple tasks to be performed by a computer (claims 49-51), and poll-select protocol interrupt logic in order to allow multiple tasks to be performed by a computer (claims 59-60) (*Office Action dated November 19, 2003* at pages 8-10).[2] In addition to the reasons for patentability set forth with regard to Group III, *infra*, neither Shelton nor the art of which the Examiner takes Official Notice teaches or suggests the "output television signal selecting means" limitation as discussed in detail in this section.

Therefore, in addition to the foregoing reasons for the patentability of claims 34-37, 39-77, and 79-88, claims 34-37, 40, 45-60, 75-77, 82-88 (Group I) are separately patentable under 35 U.S.C. §102(b).

(2). Shelton Does Not Teach or Disclose Continuously Monitoring the Changes in the Weather Parameters Prevailing at each of the Plurality of Geographic

[2] Appellant notes that, although rejected under 35 U.S.C. §103(a), Examiner relies on various figures and sections of Shelton in rejecting claims 52-58. None of these figures or sections teaches or suggests the "output television signal selecting means" limitation as discussed in detail in this section.

Locations So That They Can Be Matched with Changes in the Television Broadcast Signals

Claims 41-44 and 79-81 are separately patentable under 35 U.S.C. §102(b) for the additional reason that Shelton does not teach the limitation that the weather parameters prevailing at each of the plurality of geographic locations are continuously monitored for changes over time, so that changes in the weather parameters can be matched with changes in the television broadcast signals. While Shelton sets forth that his system continuously collects and transmits the weather parameters (*see, e.g., Shelton,* Col 3, lines 35-41, Col. 8, lines 45-48), the Examiner does not point to any teaching where the system of Shelton actively monitors the weather parameters for changes over time so that the ***changes in the weather parameters can be matched with changes in the television broadcast signals***. Therefore, in addition to the foregoing reasons for the patentability of claims 34-37, 40-77, and 79-88, claims 41-44 and 79-81 (Group II) are separately patentable under 35 U.S.C. §102(b).

Claims 42-43 are also separately patentable under 35 U.S.C. §102(b) over Shelton; more specifically, of TDMA communications (claim 42) *(Office Action dated November 19, 2003* at page 7).[3] In addition to the reasons for patentability set forth with regard to Group III, *infra*, Shelton teaches or suggests actively monitoring weather parameters for changes over time so that the changes in the weather parameters can be matched with changes in the television broadcast signals.

(c). Neither Shelton Teaches or Suggests Appellant's Claimed Limitation of the Integration of Weather Information into Television Broadcast Signals Originating from and Related to a Plurality of Geographic Locations

Claims 61-74 also stand rejected under 35 U.S.C. §102(b). Independent claim 61 is similar to independent claim 34, and teaches a system for integrating data representing weather parameters prevailing at a plurality of geographic locations into television broadcast signals originating from and related to the plurality of geographic locations. (*see, infra, Appendix A*). Again, as set forth with respect to claim 34, Shelton does not teach integration of weather information into television broadcast signals originating from and related to a plurality of geographic locations. Instead, Shelton clearly recognizes that the "image information" transmitted from RWS 38, 42, and 46 – whether still image, real-time images or real-time video - is not equivalent to Appellant's television broadcast signals, since it teaches that the

[3] Again, Appellant notes that, although rejected under 35 U.S.C. §103(a), Examiner relies on sections within Shelton in rejecting claim 43. Neither of the cited sections teaches or suggests actively monitoring weather parameters for changes over time so that the changes in the weather parameters can be matched with changes in the television broadcast signals.

signal is later modified to meet NTSC standards for broadcast quality when it is to be broadcast or multiple video source distribution (*Shelton*, Col 3., lines 16-19).

Furthermore, nothing in the various arts of which the Examiner has taken Official Notice in rejecting these claims teaches or suggests this limitation. More specifically, the Examiner states with respect to claim 61 that "[i]t would have been obvious...to modify the systems and methods of Shelton by using ISR logic in order to allow multiple tasks to be performed by computer 114." (*Office Action dated November 19, 2003* at page 8). Again, as stated above, Shelton's "image information" transmitted from RWS 38, 42, and 46 is not equivalent to Appellant's television broadcast signals, since it teaches that the signal is later modified to meet NTSC standards for broadcast quality when it is to be broadcast or multiple video source distribution. The Examiner does not provide evidence of how one skilled in the art could use ISR logic to overcome this deficiency, and Appellant submits that ISR logic would not impart such teaching or suggestion, nor would one skilled in the art look to ISR logic to provide same. For this reason, claim 61 is patentable under 35 U.S.C. §103(a). As claims 62-74 depend directly or indirectly from claim 61, they too are patentable over Shelton under 35 U.S.C. §102(b).

B. WHETHER CLAIMS 37-39 AND 78 ARE PATENTABLE UNDER 35 U.S.C. §103(A) OVER SHELTON IN VIEW OF VARIOUS TECHNICAL KNOWLEDGE AND OFFICIAL NOTICES TAKEN BY THE EXAMINER?

As stated, *supra*, the Examiner has rejected claims 37-39 and 78 under 35 U.S.C. §103(a) as being unpatentable over Shelton in view of various technical knowledge and Official Notices, or in the alternative, anticipated by Shelton. Appellant respectfully traverses this rejection for the reasons set forth in the Response dated January 19, 2004 and as set forth immediately below.

1. The Examiner Has Failed to Make a *Prima Facie* of Obviousness under 35 U.S.C. §103(a) – Claims 37-39 and 78

The Examiner has rejected claims 37-39 and 78 under 35 U.S.C. §103(a) as being unpatentable over Shelton in view of various arts of which the Examiner has taken Official Notice. Appellant respectfully traverses this rejection for the reasons set forth in the Response dated January 19, 2004 and as set forth immediately below.

The Examiner has failed to meet the burden of a *prima facie* showing of obviousness under 35 U.S. C. §103(a). Although not dispositive before the Board, the United States Patent and Trademark Office's Manual of Patent Examining Procedures sets forth three basic criteria that must be met in order to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. (*M.P.E.P §2143*). Further, the teaching or suggestion to make the claimed combination must not use impermissible hindsight and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. (*Id., citing In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)).

(a). As Neither Shelton nor Any of the Art Cited/Official Notices Taken by the Examiner Teaches or Suggests Any of the Missing Claimed Limitations Discussed Above with Regard to Claim 34, and Claims 42-43 and 47-60 Depend Directly or Indirectly Therefrom, Claims 42-43 and 47-60 are Patentable Over Shelton and the Art Cited/Official Notices

Claims 42-43 and 47-60 depend directly or indirectly from claim 34. As stated in A.1 and A.2, *supra*, claim 34 is patentable under 35 U.S.C. §102(b) for at least the reason that Shelton does not teach or disclose the transmission of television broadcast signals originating from and related to a plurality of geographic locations and the integration of data representing weather parameters from those locations. Furthermore, nothing in the various arts of which the Examiner has taken Official Notice teaches or suggests this limitation.

As set forth above, claims 42-43 are additionally patentable in that neither Shelton nor the Official Notices teach or suggest the limitation that the weather parameters prevailing at each of the plurality of geographic locations are continuously monitored for changes over time, so that changes in the weather parameters can be matched with changes in the television broadcast signals. Similarly, as set forth in more detail, *supra*, claims 47-60 are separately patentable in that neither Shelton nor the Official Notices teach or suggest Appellant's claimed "output television signal selecting means" limitation. Therefore claims 42-43 and 47-60 are also patentable under 35 U.S.C. §103(a).

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VIII. CONCLUSION AND PRAYER FOR RELIEF

For all of the reasons set forth herein, the Examiner has failed to make a *prima facie* case under 35 U.S.C. §102(b) and 35 U.S.C. §103(a), and Appellant's application is patentable over the Shelton reference and various arts of which the Examiner has taken Official Notice. Appellant therefore comes before this Board and respectfully requests that the rejections be overturned, the claims be allowed, and the application pass to issuance.

Respectfully submitted,
JEFFREY C. SCHROEDER

DATED: 27 NOVEMBER 2007

BY: _____

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IX. CLAIMS APPENDIX - CLAIMS INVOLVED IN APPEAL

34. (Previously Presented) A system for integrating data representing weather parameters prevailing at a plurality of geographic locations into television broadcast signals originating from and related to the plurality of geographic locations, the system comprising:

a monitoring station located at each of the plurality of geographic locations, the monitoring station including,

means for sensing the weather parameters prevailing at each of the plurality of geographic locations, and for generating weather parameter signals representing the weather parameters, and

means for transmitting the weather parameter signals from the monitoring station;

a base station including,

means for receiving the weather parameter signals from the monitoring station, and for providing the weather parameter signals to the base station,

means for generating icon signals representing weather parameter icons in response to the weather parameter signals, the weather parameter icons representing the weather parameters sensed at the plurality of geographic locations, and

means for converting the icon signals into television signals representing the weather parameters, the television signals being in a format suitable for integration into the television broadcast signals;

production switching means for receiving the television signals representing the weather parameters and the television broadcast signals, and for combining the television signals representing the weather parameters and the television broadcast signals so that first icon signals representing first weather parameter signals sensed at a first geographic location are combined with first television broadcast signals from the first geographic location, and so that second icon signals representing second weather parameter signals sensed at a second geographic location different from the first geographic location are combined with second television broadcast signals from the second geographic location; and

means coupled with the production switching means for selecting an output television signal corresponding to either the first icon signals representing the first weather parameter signals sensed at the first geographic location combined with the first television broadcast signals from the first geographic location or the second icon signals representing the second weather parameter signals sensed at the second geographic location combined with the second television broadcast signals from the second geographic location.

35. (Previously Presented) The system of claim 34, wherein the television broadcast signals are live video signals including portions which can vary responsive to the weather parameters prevailing at the geographic locations.

36. (Previously Presented) The system of claim 34, wherein the sensing means includes means for sensing wind direction prevailing at the plurality of geographic locations and for generating wind direction signals representing the sensed wind direction, and means for sensing wind speed prevailing at the plurality of geographic locations and for generating wind speed signals representing the wind speed.

37. (Previously Presented) The system of claim 36, wherein the monitoring station includes a microcontroller coupled to receive the weather parameter signals from the sensing means, and wherein the transmitting means includes a wireless modem coupled to the microcontroller to transmit the wind direction signals and the wind speed signals from the monitoring station.

38. (Previously Presented) The system of claim 37, wherein the wireless modem is coupled with a cellular communications network.

39. (Previously Presented) The system of claim 37, wherein the wireless modem is coupled with a UHF radio communications network.

40. (Previously Presented) The system of claim 37, wherein the icon signal generating means is simultaneously responsive to the wind direction signals, to create a wind direction icon signal representing a wind direction icon, and to the wind speed signals, to create a wind speed icon signal representing a wind speed icon.

41. (Previously Presented) The system of claim 34, wherein the weather parameters prevailing at each of the plurality of geographic locations are continuously monitored for changes over time, so that changes in the weather parameters can be matched with changes in the television broadcast signals.

42. (Previously Presented) The system of claim 41, wherein the transmitting means is a shared transmitting means, having time-multiplexing means for establishing communications between the monitoring station and the base station.

43. (Previously Presented) The system of claim 42, which further includes means for periodically polling the monitoring station, for the continuous monitoring of the changes in the weather parameters over time.

44. (Previously Presented) The system of claim 41, wherein the weather parameters prevailing at each of the plurality of geographic locations are continuously monitored in real-time.

45. (Previously Presented) The system of claim 34, wherein the production switching means includes means for merging the icon signals with the television broadcast signals, the merging means producing the output television signal representing the weather parameter icons superimposed on the television broadcast signals.

46. (Previously Presented) The system of claim 45, which further includes means for generating an advertising icon signal representing an advertising icon including advertising indicia, and wherein the output television signal produced by the merging means includes an advertising icon merged with the weather parameter icons superimposed on the television broadcast signals.

47. (Previously Presented) The system of claim 34, wherein the monitoring station includes a microcontroller coupled to receive the weather parameter signals from the sensing means, and wherein the microcontroller includes means for sampling the weather parameter signals generated by the sensing means, and interrupt logic for servicing interrupts generated by the sampling means.

48. (Previously Presented) The system of claim 47, wherein the microcontroller further includes interrupt service routines for configuring the sampling means and to retrieve sampled data from the sampling means, and switch logic responsive to an operator and operatively coupled with the interrupt service routines for configuring and programming the microcontroller.

49. (Previously Presented) The system of claim 48, wherein the microcontroller further includes protocol interrupt logic for coordinating and executing series communication of the sampled data from the microcontroller to the base station.

50. (Previously Presented) The system of claim 47, wherein the base station includes multi-point serial communications protocol logic for coordinating and executing serial communications between the base station and the microcontroller of the monitoring station.

51. (Previously Presented) The system of claim 50, wherein the protocol logic is based on a poll-select protocol.

52. (Previously Presented) The system of claim 47, wherein the microcontroller further includes operator interface means coupled with the microcontroller.

53. (Previously Presented) The system of claim 52, wherein the operator interface means enables a selective display of status conditions of the monitoring station.

54. (Previously Presented) The system of claim 52, wherein the operator interface means enables selection of the monitoring station to be sampled.

55. (Previously Presented) The system of claim 54, wherein the operator interface means enables selection of a graphic for displaying data received from the monitoring station.

56. (Previously Presented) The system of claim 52, wherein the operator interface means includes at least one remote status window for the monitoring station coupled with the base station, for displaying status conditions and sampled data to the operator.

57. (Previously Presented) The system of claim 56, wherein the operator interface means further includes means for controlling the sampling and the display of the monitoring station, and means for setting graphic parameters and for controlling display of icons associated with the monitoring station.

58. (Previously Presented) The system of claim 57, which further includes graphics presenting and updating logic means coupled with the operator interface means, for combining operator inputs with the sampled data from the monitoring station, and for responsively displaying the graphics.

59. (Previously Presented) The system of claim 58, wherein the graphics presenting and updating logic means is coupled with protocol interrupt logic for coordinating and executing communication of the

sampled data from the microcontroller to the base station, for refreshing the sampled data from the monitoring station, thereby providing an up-to-the-minute display of weather conditions for display with the television broadcast signals.

60. (Previously Presented) The system of claim 59, wherein the weather conditions and the television broadcast signals are continuously monitored and displayed in real-time.

61. (Previously Presented) A system for integrating data representing weather parameters prevailing at a plurality of geographic locations into television broadcast signals originating from and related to the plurality of geographic locations, the system comprising:

a monitoring station located at each of the plurality of geographic locations, the monitoring station including,

means for sensing the weather parameters prevailing at each of the plurality of geographic locations, and for generating weather parameter signals representing the weather parameters, and

means for transmitting the weather parameter signals from the monitoring station; and

a base station including,

means for receiving the weather parameter signals from the monitoring station, and for providing the weather parameter signals to the base station,

means for generating icon signals representing weather parameter icons in response to the weather parameter signals, the weather parameter icons representing the weather parameters sensed at the plurality of geographic locations, and

means for converting the icon signals into television signals representing the weather parameters, the television signals being in a format suitable for integration into the television broadcast signals;

wherein the monitoring station includes a microcontroller coupled to receive the weather parameter signals from the sensing means, and wherein the microcontroller includes means for sampling the weather parameter signals generated by the sensing means, and interrupt logic for servicing interrupts generated by the sampling means.

62. (Previously Presented) The system of claim 61, wherein the microcontroller further includes interrupt service routines for configuring the sampling means and to retrieve sampled data from the

sampling means, and switch logic responsive to an operator and operatively coupled with the interrupt service routines for configuring and programming the microcontroller.

63. (Previously Presented) The system of claim 62, wherein the microcontroller further includes protocol interrupt logic for coordinating and executing series communication of the sampled data from the microcontroller to the base station.

64. (Previously Presented) The system of claim 61, wherein the base station includes multi-point serial communications protocol logic for coordinating and executing serial communications between the base station and the microcontroller of the monitoring station.

65. (Previously Presented) The system of claim 64, wherein the protocol logic is based on a poll-select protocol.

66. (Previously Presented) The system of claim 61, wherein the microcontroller further includes operator interface means coupled with the microcontroller.

67. (Previously Presented) The system of claim 66, wherein the operator interface means enables a selective display of status conditions of the monitoring station.

68. (Previously Presented) The system of claim 66, wherein the operator interface means enables selection of the monitoring station to be sampled.

69. (Previously Presented) The system of claim 68, wherein the operator interface means enables selection of a graphic for displaying data received from the monitoring station.

70. (Previously Presented) The system of claim 66, wherein the operator interface means includes at least one remote status window for the monitoring station coupled with the base station, for displaying status conditions and sampled data to the operator.

71. (Previously Presented) The system of claim 70, wherein the operator interface means further includes means for controlling the sampling and the display of the monitoring station, and means for setting graphic parameters and for controlling display of icons associated with the monitoring station.

72. (Previously Presented) The system of claim 71, which further includes graphics presenting and updating logic means coupled with the operator interface means, for combining operator inputs with the sampled data from the monitoring station, and for responsively displaying the graphics.

73. (Previously Presented) The system of claim 72, wherein the graphics presenting and updating logic means is coupled with protocol interrupt logic for coordinating and executing communication of the sampled data from the microcontroller to the base station, for refreshing the sampled data from the monitoring station, thereby providing an up-to-the-minute display of weather conditions for display with the television broadcast signals.

74. (Previously Presented) The system of claim 73, wherein the weather conditions and the television broadcast signals are continuously monitored and displayed in real-time.

75. (Previously Presented) A method for integrating data representing weather parameters prevailing at a plurality of geographic locations into television broadcast signals originating from and related to the plurality of geographic locations, the method comprising the steps of:

monitoring weather conditions at each of the plurality of geographic locations, the monitoring including sensing the weather parameters prevailing at each of the plurality of geographic locations, and generating weather parameter signals representing the weather parameters;

transmitting the weather parameter signals from the monitoring station to a base station for receiving the weather parameter signals, for providing the weather parameter signals to the base station;

generating icon signals representing weather parameter icons in response to the weather parameter signals, the weather parameter icons representing the weather parameters sensed at the plurality of geographic locations;

converting the icon signals into television signals representing the weather parameters, the television signals being in a format suitable for integration into the television broadcast signals;

receiving the television signals representing the weather parameters and the television broadcast signals in production switching means for combining the television signals representing the weather parameters and the television broadcast signals, wherein the combining includes a first combining of first icon signals representing first weather parameter signals sensed at a first geographic location with first television broadcast signals from the first geographic location, and a second combining of second icon signals representing second weather parameter signals sensed at a second geographic location different

from the first geographic location with second television broadcast signals from the second geographic location; and

selecting an output television signal corresponding to either the first icon signals representing the first weather parameter signals sensed at the first geographic location combined with the first television broadcast signals from the first geographic location or the second icon signals representing the second weather parameter signals sensed at the second geographic location combined with the second television broadcast signals from the second geographic location.

76. (Previously Presented) The method of claim 75, which further includes the step of providing, as the television broadcast signals, live video signals including portions which can vary responsive to the weather parameters prevailing at the geographic locations.

77. (Previously Presented) The method of claim 75, which further includes the steps of sensing wind direction prevailing at the plurality of geographic locations and generating wind direction signals representing the sensed wind direction, and sensing wind speed prevailing at the plurality of geographic locations and generating wind speed signals representing the wind speed.

78. (Previously Presented) The method of claim 75, which further includes the step of performing the transmitting step and the receiving step with wireless communications.

79. (Previously Presented) The method of claim 75, which further includes the steps of continuously monitoring the weather parameters prevailing at each of the plurality of geographic locations for changes over time, and matching changes in the weather parameters with changes in the television broadcast signals.

80. (Previously Presented) The method of claim 79, which further includes the step of periodically polling the monitoring station, for continuously monitoring the changes in the weather parameters over time.

81. (Previously Presented) The method of claim 80, wherein the weather parameters prevailing at each of the plurality of geographic locations are continuously monitored in real-time.

82. (Previously Presented) The method of claim 75, which further includes the steps of merging the icon signals with the television broadcast signals, and producing the output television signal representing the weather parameter as icons superimposed on the television broadcast signals.

83. (Previously Presented) The method of claim 82, which further includes the steps of generating an advertising icon signal representing an advertising icon including advertising indicia, and merging the advertising icon signal with the weather parameter icon signals and the television broadcast signals, superimposing the advertising icon and the weather parameter icons on the television broadcast signals.

84. (Previously Presented) The method of claim 75, which further includes the step of selectively displaying status conditions of the monitoring station responsive to an operator interface.

85. (Previously Presented) The method of claim 84, which further includes the step of selecting the monitoring station to be sampled.

86. (Previously Presented) The method of claim 85, which further includes the step of displaying a graphic for displaying data received from the monitoring station.

87. (Previously Presented) The method of claim 86, which further includes the step of displaying status conditions and sampled data associated with the monitoring station.

88. (Previously Presented) The method of claim 87, which further includes the steps of controlling the sampling and the display of the monitoring station, and setting graphic parameters and controlling display of icons associated with the monitoring station.

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X. EVIDENCE APPENDIX

NONE.

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IX. RELATED PROCEEDINGS APPENDIX

NONE.

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